

## **REMARKS**

### **Status of the Claims**

[1] As of the date of the outstanding Office Action, there were 33 pending claims, 1-33, under the application. Claims 2-4, 6, 7, 9, 23, 26, 30, and 32 have been cancelled herein, leaving 22 pending claims, 1, 5, 8, 10-22, 24-25, 27-29, 31, 33. No fees are believed due to enter the claim amendments.

[2] Claims 1, 8, 16-19, 22, 25, 31, and 33 have been amended herein.

Support for the amendments to claims 1, 22, 25 and 33 may be found in original claims 4 and 7.

Support for the amendment to claim 8 may be found in the specification at least at pg. 5:6-10.

Support for the amendment to claim 16 may be found in the specification at least at pg. 4:5-9.

Support for the amendment to claim 19 may be found in the specification at least at pg. 20:23-25.

Thus, no new matter has been added.

[3] In ¶2 of the Action, claim 17 was objected to as missing a period at the end of the claim. The claim has been amended to add a period.

[4] In response to ¶1 of the Action, the specification has been reviewed for proper treatment of the trademark Dowanol® PPH and amended to insert a missing ® symbol. Thus, no new matter has been added.

## **REJECTIONS and TRAVERSE**

### **35 USC 112(2)**

[5] In ¶3 of the Action, Claims 8 and 16 were rejected for improperly reciting a Markush group. These claims have been amended to properly so recite.

Claim 18 was alleged to be indefinite for using an unclear abbreviation, “ESD” and has been amended to recite the Electrostatic Discharge Test, well known to those skilled in the art as the ESD test.

Claims 11, 17 and 19 were rejected as dependent upon a rejected base claim. The base claims have been amended.

### **35 USC 102(b)**

[6] In ¶4 of the Action, the Examiner rejected claims 1-3, 5-6, 9, 20, 22-23 under this provision as anticipated by JP 11-050037 [“JP ‘037”]. The Examiner asserts that, since JP ‘037 discloses a composition excellent in heat resistance, processability and adhesion and, among other things, shows low water absorption, JP ‘037 anticipates the claims.

[7] JP '037 does not anticipate the claims as amended. JP '037 discloses a poly(ester) imide used for its heat-resisting properties. The JP '037 imide does not have the same chemical structure/composition as the claimed one. Moreover, the JP '037 polymer has a glass transition temperature of 300°C or less (p. 8, para. [0047]). The recited glass transition occurs at greater than 310 °C, thereby further distinguishing the JP '037 polymer and the recited composition. Applicants respectfully request the withdrawal of this rejection.

[8] In ¶5 of the Action, the Examiner rejected claim 22 under this provision as anticipated by EP1145845 ["EP '845"]. EP '845 does not anticipate amended claim 22. EP '845 discloses a solution of a solvent-soluble polyimide containing a certain compound as an acid component or diamine component. The EP '845 solution, when dried, forms a polyimide film. The EP '845 polymer differs in structure/composition from that recited in amended claim 22. Moreover, EP '845 does not disclose a polynorbornene. Applicants respectfully request the withdrawal of this rejection.

35 USC 102(e)

[9] In ¶6 of the Action, the Examiner rejected claims 1-3, 7-8, 10, 12-13, 22 and 23 under this provision as anticipated by U.S. App. Pub. No. 2004/0084774 to Li *et al* ["Li"]. The Examiner states that Li discloses polynorbornene copolymers that have a glass transition temperature greater than 200 °C., preferably greater than 300 °C and less than 2% weight loss. Adhesion promoters are also disclosed. Li does not expressly disclose a water absorption of 2% or less. The Examiner asserts that, since Li discloses less than 2% weight loss, Li would indicate that the polymer inherently absorbs 2% or less water and therefore bases the anticipation rejection on a presumed characteristic of the Li polymers.

[10] Applicants disagree that Li discloses an inherently anticipating polymer. Li discloses a "glass layer formation material" selected from the group **consisting of** . . . norbornene and acenaphthylene copolymers; polynorbornene derivatives; blend of polynorbornene and polyacenaphthylene; . . . ." (p. 3, para[0015] and para. [0032]). The claims as amended recite polynorbornene, polyarylate and mixtures thereof. Norbornene and acenaphthylene copolymers; polynorbornene derivatives; and blends of polynorbornene and polyacenaphthylene are structurally different compositions from the recited polynorbornene. Therefore, each Li polymer differs in structure from the recited composition.

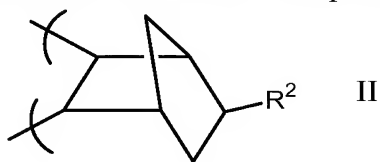
[11] Importantly, Li discloses that its polymers are heated to a temperature of greater than about 350°C to form a layer that has less than a 2% weight loss after holding at 300 °C for one hour. (p. 3, para. [0015]). This contrasts with the fact that the claimed composition may have a peak curing profile of 270 °C with a short infrared cure (5-30 minutes). This difference in curing profile point directly to the difference in structure and composition of the Li polymers

versus the claimed composition. The claimed composition need not be heated to 350 °C and does not require the long time period to achieve a 2% or less water absorption. (See spec. p. 7, ll. 22-33). Because the Li compositions are structurally different, which translates into different chemical and physical properties, from the recited composition, Applicants respectfully request the withdrawal of this rejection.

### 35 USC 102/103

[12] In ¶7, the Examiner rejected claims 1-8, 10, 22, and 23 as anticipated by or alternatively obvious over JP 10-251343 (JP '343). JP '343 discloses specific epoxy group content, norbornene system polymer compositions. The JP '343 polymers are all "ladder-form" polyolefins and as such are not chemically or structurally the same or equivalent to the recited composition.

[13] JP '343 does not disclose a cross-linking or networking-forming reaction as discussed in the specification. Consequently, there can be no motivation or suggestion to provide the polynorbornene that further comprises molecular units of formula II



wherein R<sup>2</sup> is a pendant group capable of participating in cross-linking or network-forming reaction selected from the group consisting of: epoxides, alcohols, silyl ethers, carboxylic acids, esters, and anhydrides; and the molar ratio of molecular units of formula II to formula I is greater than 0 to about 0.4.

[14] In ¶8, the Examiner rejected Claims 1-7, 10, 14-15, and 20-24 as anticipated by or alternatively obvious over US 6,492,443 to Kodemura *et al.* ["Kodemura"]. Kodemura discloses a certain norbornene resin composition comprising a thermoplastic norbornene polymer and a thermosetting resin. Moreover, Kodemura does not disclose any chemical characteristics that would lead one of skill in the art to presume that its polymer had the same chemical properties as the recited composition. Further, Kodemura does not disclose water absorption values of its polymer. Although the Kodemura resin may contain similar ingredients as the recited composition, Kodemura does not disclose all claimed elements. Nor does Kodemura motivate for or suggest the undisclosed elements.

[15] Furthermore, Kodemura does not disclose that its polymer may be useful as a binder for resistors or in an encapsulant composition nor would one of skill in the art presume such

utility. Although Comparative Example 1 in the specification discusses a polyimide resin useful in some electronic applications, that resin does not make a useful resistor binder. The take home message is that utility as a binder for resistors or as an encapsulant composition cannot be presumed. Applicants respectfully request the withdrawal of this rejection.

### 35 USC 103

[16] In ¶9, the Examiner rejected claims 4-6 under this provision as being unpatentable over Li. The above remarks regarding Li also apply here. Since Li does not disclose each element of the recited composition nor suggest or motivate the present technical solution, Li does set forth a *prima facie* case of obviousness. Applicants respectfully request the withdrawal of this rejection.

[17] In ¶10, the Examiner rejected claims 16 and 33 under this provision as obvious over Kodemura. The above remarks regarding Kodemura also apply here. Kodemura does not disclose each element of the recited composition. Nor does Kodemura does disclose the technical solution of the present invention, namely, use in any kind of resistor application or as a discrete or planar capacitor. Kodemura does not set forth a *prima facie* case of obviousness and Applicants respectfully request the withdrawal of this rejection.

[18] In ¶11, the Examiner rejected claims 16-18, 25-30 and 33 under this provision as obvious over Kodemura in view of U.S. Pat. No. 5,470,643 to Dorfman [“Dorfman”].

In ¶12, the Examiner rejected claims 16-18, 25-26, 28-29 and 32-33 under this provision as obvious over JP ‘037 in view of Dorfman.

In ¶13, the Examiner rejected claims 16-18, 25-26, 28-31 and 33 under this provision as being unpatentable over JP ‘343 in view of Dorfman.

The above remarks regarding Kodemura, JP ‘037 and JP ‘343 also apply here. None of the Kodemura, Dorfman, JP ‘037 and JP ‘343 references individually discloses each element recited in the claims. Nor does any combination of these references so disclose. That is, no combination of these references rehabilitates any single reference or cited combination from not disclosing all claimed elements. In addition, none of the Kodemura, JP ‘037 and JP ‘343 references suggests or motivates that their disclosed compositions are useful in resistor applications. Applicants respectfully request these rejections be withdrawn.

[19] In view of the foregoing, Applicants respectfully request allowance of the above-referenced application.

Respectfully submitted,

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Dated: 20 Feb 2007